

a second data interface unit, provided on an opposing end of the card for coupling to the external device for transferring the output information to the external device and the input information from the external device; and

a data transfer circuit, incorporated with the card in response to the input information being received by the second data interface unit for transferring the input information to the first data interface unit and in response to the output information being received by the first data interface unit, for transferring the output information to the second data interface unit.

39. An electronic system, comprising:

an electronic device, provided with a slot [on an external wall] thereof;

an external device providing a peripheral function for the electronic device; [and]

a card [interface], inserted into the slot of the electronic device, and coupling the electronic device to the external device[, the card including:];

a first data interface unit, provided on one end of the card, for coupling to the electronic device for transferring input information to the electronic device and output information from the electronic device; [when the card interface is inserted into the slot;]

a second data interface unit, provided on an opposing end of the card for coupling to the external device for transferring the output information to the external device and the input information from the external device; and

a data transfer circuit, incorporated with the card in response to the input information being received by the second data interface unit, for transferring the input

information to the first data interface unit, and in response to the output information being received by the first data interface unit, for transferring the output information to the second data interface unit.

40. A card type input/output interface device for operatively connecting an electronic device to an external device, comprising:

a card, to be inserted into a slot provided in the electronic device; provided with a first end portion and a second end portion opposite to the first end portion,

[including:] ;

a data transfer circuit incorporated with the card for transferring information between the electronic device and the external device,

a first [parallel] data connector, [formed] provided on the first end portion of the card, for electrically connecting the data transfer circuit to the electronic device when the card is inserted into [a] the slot [provided in an external wall in the body of the electronic device;] and

a second data connector, [formed] provided on the second end portion of the card, for coupling the data transfer circuit to the external device.

41. A card type input/output interface device for operatively connecting an electronic device to an external device, comprising:

a card [including:] , to be inserted into a slot provided in the electronic device;

a [parallel] data connector for transferring input information to the electronic device and output information from the electronic device when the card is inserted into [a] the slot [provided in an external wall in the body of the electronic device];

a wireless data transmitter/receiver for transmitting the output information to the external device and for receiving the input information from the external device via a wireless communication channel; and

a data transfer circuit, in response to receiving the input information by the wireless data transmitter/receiver, for transferring the input information to the [parallel] data connector, and in response to receiving the output information by the [parallel] data connector, for transferring the output information to the wireless data transmitter/receiver, wherein the data connector, the wireless data transmitter/receiver and the data transfer circuit are incorporated with the card.

43. A card type input/output interface device for operatively connecting an electronic device to an external device, comprising:

a card [including] to be inserted into a slot provided in the electronic device:

a converter for receiving a parallel bit digital information from the electronic device and for converting the parallel bit digital information into a serial bit digital information when the card is inserted into [a] the slot [provided in an external wall in the body of the electronic device]; and

a data transfer circuit for transferring the serial bit digital information from the converter to the external device, wherein the converter and the data transfer circuit are incorporated with the card.

44. A card type input/output interface device for operatively connecting an electronic device to an external device, comprising:

a card, provided with a first end portion and a second end portion, opposite to the first end portion, having a thickness greater than a thickness of the first end portion, [including:]

a data transfer circuit, incorporated with the card, for transferring information between the electronic device and the external device;

a first [parallel] data connector, [formed] provided on the first end portion of the card, for electrically connecting the data transfer circuit to the electronic device when the first end portion of the card is inserted into a slot provided in the external wall in the body of the electronic device; and

a second data connector, [formed] provided on the second end portion, for coupling the data transfer circuit to the external device.

45. A system, to be operatively connected to an electronic device, comprising:

an external device providing a peripheral function for the electronic device; [and]

a card [interface], electrically connected to the external device, [the card including:] to be inserted into a slot provided in the electronic device;

a first data interface unit for transmitting input information to the electronic device and for receiving output information from the electronic device when the card interface is inserted into [a] the slot [provided in an external wall in the body of the electronic device];

a second data interface unit for transmitting the output information to the external device and for receiving the input information from the external device; and

a data transfer circuit, in response to receiving the input information by the second data interface unit, for transferring the input information to the first data interface unit, and in response to receiving the output information by the first data interface unit, for transferring the output information to the second data interface unit, wherein the first data interface unit, the second interface unit and the data transfer circuit are incorporated with the card.

46. A system, to be operatively connected to an electronic device, comprising:
an external device providing a peripheral function for the electronic device; [and]

a card, provided with a first end portion and a second end portion opposite to the first end portion, [the card including:] to be inserted into a slot provided in the electronic device;

a data transfer circuit, incorporated with the card, for transferring information between the electronic device and the external device,

a first connector, [formed] provided on the first end portion of the card, for electrically connecting the data transfer circuit to the electronic device when the first end portion of the card is inserted into [a] the slot [provided in the electronic device]; and
a second connector, [formed] provided on the second end portion of the card, for electrically connecting the data transfer circuit to the external device.

47. A system, to be operatively connected to an electronic device, comprising:
an external device providing a peripheral function for the electronic device; [and]

a card interface, operatively connected to the external device via a wireless communication channel to be inserted into a slot provided in the electronic device;

[including:]

a [parallel] data connector for transferring input information to the electronic device and output information from the electronic device when the card interface is inserted into [a] the slot [provided in an external wall in the body of the electronic device];

a wireless data transmitter/receiver for transmitting the output information to the external device and for receiving the input information from the external device via the wireless communication channel; and

a data transfer circuit, in response to receiving the input information by the wireless data transmitter/receiver, for transferring the input information to the [parallel] data connector, and in response to receiving the output information by the [parallel] data connector for transferring the output information to the wireless data transmitter/receiver

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wherein the data connector, the wireless data transmitter/receiver and the data transfer circuit are incorporated with the card.

49. A system, to be operatively connected to an electronic device, comprising:
an external device providing a peripheral function for the electronic device; [and]

a card interface, operatively connected to the external device [including:] , to be inserted into a slot provided in the electronic device;

a converter for receiving a parallel bit digital information from the electronic device and for converting the parallel bit digital information into a serial bit digital information when the card interface is inserted into [a] the slot [provided in an external wall in the body of the electronic device] and;

a data transfer circuit for transferring the serial bit digital information from the converter to the external device, wherein the converter and the data transfer circuit are incorporated with the card.

50. A system, to be operatively connected to an electronic device, comprising:
an external device providing a peripheral function for the electronic device; [and]

a card, provided with a first end portion and a second end portion, opposite to the first end portion, having a thickness greater than a thickness of the first end portion, [including:] ;

a data transfer circuit incorporated with the card, for transferring information between the electronic device and the external device,

a first [parallel] data connector, [formed] provided on the first end portion of the card, for electrically connecting the data transfer circuit to the electronic device when the first end portion of the card is inserted into a slot provided in an external wall in the body of the electronic device; and

a second data connector, [formed] provided on the second end portion, for coupling the data transfer circuit to the external device.

51. An electronic system, comprising:

an electronic device, provided with a slot [in an external wall in the body thereof];

an external device providing a peripheral function for the electronic device; [and]

a card [interface], provided with a first end portion and a second end portion opposite to the first end portion, the first end portion inserted into the slot of the electronic device, [the card including:];

a data interface circuit incorporated with the card for transferring information between the electronic device and the external device;

a first [parallel] data connector, [formed] provided on the first end portion of the card, for electrically connecting the data transfer circuit to the electronic device [when the first end portion of the card is inserted into the slot]; and

a second data connector, [formed] provided on the second end portion of the card, for coupling to the data transfer circuit to the external device.

52. An electronic system, comprising:

an electronic device, provided with a slot [in an external wall in the body thereof];

an external device providing a peripheral function for the electronic device; [and]

a card [interface], inserted into the slot of the electronic device and operatively connecting the electronic device to the external device via a wireless communication channel [, the card including:] ;

a [parallel] data connector for transferring input information to the electronic device; and for receiving output information from the electronic device [when the card interface is inserted into the slot];

a wireless data transmitter/receiver from transmitting the output information to the external device and for receiving the input information from the external device via the wireless communication channel; and,

a data transfer circuit, in response to receiving the input information by the wireless data transmitter/receiver, for transferring the input information to the [parallel] data connector, and in response to receiving the output information by the [parallel] connector, for transferring the output information to the wireless data transmitter/receiver wherein the data connector, the wireless data transmitter/receiver and the data transfer circuit are incorporated with the card.

54. An electronic system, comprising:

an electronic device, provided with a slot [in an external wall in the body thereof];

an external device providing a peripheral function for the electronic device; [and]

a card [interface], inserted into the slot of the electronic device, and operatively connecting the electronic function to the external device; [, including:]

a converter for receiving a parallel bit digital information from the electrical device and for converting the parallel bit digital information into a serial bit digital information;

a data transfer circuit for coupling the serial bit digital information from the converter to the external device, wherein the converter and the data transfer circuit are incorporated with the card.

55. An electronic system, comprising:

an electronic device, provided with a slot [in an external wall in the body thereof];

an external device providing a peripheral function for the electronic device; [and]

a card [interface], provided with a first end portion inserted into the slot of the electronic device and a second end portion opposite to the first end portion, having a thickness greater than a thickness of the first end portion; [, including:]